

## Claims.

1. (Currently Amended) Vessel for molten silicon comprising a silicon composite thermet sprayed coating comprising metal silicon, silicon nitride and silicon oxide on at least a part of ~~the~~ an interior wall of the ~~silicon holding~~ vessel, the silicon composite thermet sprayed coating comprising a mixing ratio of metal silicon (X): silicon nitride (Y): silicon oxide (Z) of  $X:Y:Z[[:]] = 20-50: 77-30: 3-20$ .
2. (Previously presented) A vessel according to claim 1, wherein the silicon composite thermet sprayed coating is formed by spraying a silicon composite thermet material made by adding metal silicon as a bonding material to a mixture of silicon nitride and silicon oxide.
3. (Currently Amended) A vessel according to claim 1, wherein the ~~silicon holding~~ vessel comprises a material selected from a group consisting of silicon oxide, boron nitride and graphite.
4. (Currently Amended) A vessel according to claim 3, wherein ~~the~~ silicon oxide is selected from a group consisting of densified fused silica and sintered fused silica.
5. (Previously presented) A vessel according to claim 1, wherein the coating has a thickness of 20-500  $\mu\text{m}$ .
6. (Previously presented) A method of producing a vessel for molten silicon, the method comprising spraying a silicon composite thermet material comprising metal silicon, silicon nitride and silicon oxide on an interior wall of the vessel, thereby forming a silicon composite thermet sprayed coating wherein the silicon

thermet sprayed coating has a mixing ratio of metal silicon (X): silicon nitride (Y): silicon oxide (Z) of X:Y:Z: = 20-50: 77-30: 3-20.

7. (Previously presented) A method according to claim 6, wherein the vessel comprises a material selected from a group consisting of silicon oxide, boron nitride and graphite.
8. (Previously presented) A method according to claim 7, wherein the silicon oxide comprises densified fused silica.
9. (Previously presented) A method according to claim 7, wherein the silicon oxide comprises sintered fused silica.
10. (Previously presented) A vessel according to claim 1, wherein the coating has a thickness 50-300  $\mu\text{m}$ .